

200209680-1

Remarks

Claims 1-19 remain pending. No new matter has been added.

Claim Rejections

35 U.S.C. §101

Claims 1-19

Claims 1-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter since they disclose abstract ideas without providing useful or tangible result. Applicants respectfully traverse the rejection and respectfully assert that the claimed features of Claims 1-19 are in-fact statutory and do provide a tangible result.

For example, In *re State Street* , 149 F.3d 47 USPQ2d 1596, 1600-1601 (Fed. Cir. 1998), it was held that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades (emphasis added).

Furthermore, MPEP 2106 (2)b) clearly states that the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application."). "[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection." *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also *Corning*, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 ("It

is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.” (emphasis added)

In other words, Applicants respectfully submit that the present invention overcomes the tangible non-statutory subject matter requirements of 35 U.S.C. §101 when the invention produces a real-world result, not when the invention outputs or displays the produced tangible real-world result. That is, Applicant understands tangible result to refer to a result that is capable of being understood and evaluated, and therefore regarded as real.

For the above reasons, Applicants respectfully submit that both Claims 1 and 17 produce the useful, concrete and tangible result of “provisioning automatically using said software and without a human operator intervention after said consulting, in said NAT table a second public IP address for address translation between said private IP address and said second public IP address.” (emphasis added) That is, the present Claimed invention produces the tangible result of an a second public IP address. Moreover, the result, e.g., an IP address, is capable of being understood and evaluated, and therefore should be regarded as real.

Additionally, Independent Claim 9 is an article of manufacture comprising a program storage medium having computer readable code embodied therein, said computer readable code being configured to automatically generate network address translation (NAT) data to enable a private host having a private IP address to communicate with a public host having a first public IP address, which is statutory subject matter.

In *In Re Lowry* (32 F.3d 1579, 32 U.S.P.Q. 2d 1031; Fed. Cir. 1994), the Federal Circuit ruled that an “electronic structure,” constructed as a memory

containing information stored in a particular arrangement, can serve as the basis for a patentable invention. The Federal Circuit determined that the claimed data structure was a physical entity having specific electrical or magnetic elements in memory. The court considered that the Lowry data structure imposed a physical organization on the data, and found that stored data existing as a collection of bits having information about data relationships may constitute patentable subject matter. Lowry asserted that a memory containing data organized by the claimed data structure permits a computer to efficiently access and to use the stored data, and thus the data structure had tangible benefits.

Applicants respectfully assert that a review of the claims of the instant application against an issued data structure claim of the Lowry patent (e.g., Claim 1 of U.S. Patent No. 5,664,177) demonstrates that the claims of the instant application are statutory.

Also, according to MPEP § 2106.01 (the Eighth Edition Incorporating Revision No. 5), “[d]escriptive material can be characterized as either ‘functional descriptive material’ or ‘nonfunctional descriptive material.’ In this context, ‘functional descriptive material’ consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of ‘data structure’ is ‘a physical or logical relationship among data elements, designed to support specific data manipulation functions.’) ... When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.”

Furthermore, according to Section I of MPEP § 2106.01 “a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory” (emphasis added).

In view of *In Re Lowry*, the example provided by the issued Lowry patent, and the guidance provided by the MPEP, Applicants respectfully submit that independent Claim 9 is directed to patentable subject matter, and as such their dependent Claims 10-16 are also directed to patentable subject matter. Additionally, in view of MPEP 2106 (2)b), Claims 1 and 17 produce a tangible result. Accordingly, Applicants respectfully submit that an essential element needed for a *prima facie* rejection of Claims 1-19 is missing, and respectfully request review of the 35 U.S.C. §101 rejection of these claims.

Therefore, Applicants respectfully submit the rejection of Claims 1-19 under 35 U.S.C. §101 is improper and should be withdrawn.

35 U.S.C. §103

Claims 1-7, 9-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagidate (6,128,644) in view of Lee (7,047,561). The rejection is respectfully traversed for the following rational.

“As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries” including “[a]scertaining the differences between the claimed invention and the prior art” (MPEP 2141(II)).

“In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)). Applicants note that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141(III)).

Applicants respectfully submit that the claimed invention as a whole is not taught or suggested by Yanagidate and Lee. Independent Claims 1, 9 and 17 includes the feature of “consulting a security policy associated with the private host to determine whether a communication between the private host and the public host is permissible” and the Examiner indicates correctly that Yanagidate fails to teach or suggest this feature, as claimed. The Examiner indicates that Lee teaches this claimed feature.

While Lee may teach a firewall, Applicants respectfully submit that the differences between the combination of Yanagidate and Lee and the claimed invention would not be obvious to one of ordinary skill in the art. Specifically, the Examiner relies on Lee as teaching “consulting a security policy associated with the private host to determine whether a communication between the private host and the public host is permissible.” Applicants respectfully disagree that Lee teaches this claimed feature.

In column 4, lines 37-47, Lee teaches “packet filter 106 examines address information contained in data packets.....to selectively control the flow of data.” Additionally Lee states “packet filter 106 will follow predetermined security rules that specify which types of packets to allow to pass and which types to block\.” With Lee, the packet data drives the filtering. This is very different from the claimed invention which “consults a policy associated with a host.” Lee’s filtering

is packet based whereas the present claimed invention uses host policy to determine communication permissions.

Host policy based communication permissions is not taught or suggested by either Yanagidate or Lee. Thus, the invention, as a whole is not taught or suggested by Yanagidate in view of Lee.

For this rational, Applicants respectfully submit that Claims 1-7, 9-15, and 17-19 are patentable over Yanagidate in view of Lee and respectfully submit the rejection is improper and should be removed.

Claims 8 and 16

Claims 1-7, 9-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagidate (6,128,644) in view of Lee (7,047,561) and yet in further view of Aukia (6,594,268). The rejection is respectfully traversed for the following rational.

As provided above, Applicants respectfully submit that neither Yanagidate nor Lee, alone and in combination teach or suggest the claimed feature of “consulting a security policy associated with the private host to determine whether a communication between the private host and the public host is permissible.” Applicants respectfully submit that Aukia fails to remedy the deficiencies of Yanagidate and Lee in that Aukia fails to teach or suggest a host policy based communication permissions, as claimed.

For this rational, Applicants respectfully submit that Claims 8 and 16 are patentable over Yanagidate in view of Lee and yet in further view of Aukia and respectfully submit the rejection is improper and should be removed.

CONCLUSION

In light of the above amendments and remarks, Applicants respectfully request allowance of Claims 1-19.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,

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